

WHAT IS CLAIMED:

Sub
A1

5 1. A method for treatment or prevention of snoring, sleep apnea or sudden infant death syndrome and for improvement of nasal breathing in mammals, said method comprising a step of administering to a subject in need thereof a liquid or a solid composition comprising of from about 0.01 to about 20% an alkylaryl polyether alcohol polymer nasally or pharyngeally.

10

2. The method of claim 1, wherein the alkylaryl polyether alcohol polymer comprising composition is applied from antegrade and from retrograde.

15

3. The method of claim 1, wherein the alkylaryl polyether alcohol polymer is tyloxapol.

Sub
A1

20 4. The method of claim 3 wherein the composition is liquid composition applied as a nasal or pharyngeal spray, as a nasal solution, as a dry powder, as a lozenge or as a nasal aerosol.

25

5. The method of claim 4 useful for treatment and prevention of snoring in humans comprising administration of the composition comprising from about 0.2 to about 20% of tyloxapol.

30

6. The method of claim 5 wherein the composition comprises from about 1 to about 10% of tyloxapol.

7. The method of claim 6 wherein the composition is the nasal or pharyngeal spray.

8. The method of claim 7 wherein the composition
5 comprises about 1% of tyloxapol.

9. The method of claim 4 useful for treatment and
prevention of sleep apnea in humans comprising administration
of the composition comprising from about 0.5 to about 20% of
10 tyloxapol.

10. The method of claim 9 wherein the composition
comprises from about 5 to about 15% of tyloxapol.

11. The method of claim 10 wherein the composition is
15 the nasal or pharyngeal spray.

12. The method of claim 11 wherein the composition
comprises about 5% of tyloxapol.

13. The method of claim 4 useful for treatment and
prevention of sudden infant death syndrome in infants
comprising administration of the composition comprising from
about 0.01 to about 5% of tyloxapol.

14. The method of claim 13 wherein the composition
comprises from about 0.1 to about 2% of tyloxapol.

15. The method of claim 14 wherein the composition is
30 the nasal spray or nasal solution.

Sub
A
cont

10056524-012302

16. The method of claim 15 wherein the composition comprises about 0.1% of tyloxapol administered to an infant before sleep as 1-3 drops.

5 17. The method of claim 4 useful for improvement of nasal breathing in humans comprising administration of the composition comprising from about 0.2 to about 20% of tyloxapol.

10 18. The method of claim 17 useful for improvement of nasal breathing during physical activity or for improvement of nasal breathing impaired due to a disease, infection or surgery by administering to a subject in need of such treatment the composition comprising from about 0.5 to about
15 10% of tyloxapol.

20 19. The method of claim 18 wherein the physical activity is diving, mountain hiking, high altitude mountain climbing or flying and wherein the composition is the nasal or pharyngeal spray or lozenge.

25 20. The method of claim 19 wherein the composition comprises about 1% of tyloxapol formulated as nasal drops, spray or lozenge .

21. The method of claim 4 useful for improvement of nasal breathing in animals.

Sub
A2
cont

10056524-012302

Sub
C1

22. The method of claim 21 wherein the treatment for improvement of nasal breathing in animals comprises administration of the nasal spray composition comprising from about 0.2 to about 20% of tyloxapol.

5

23. The method of claim 22 wherein the composition comprises from about 5 to about 15% of tyloxapol.

24. The method of claim 1 wherein the composition comprises from about 1% to about 10% of the alkylaryl polyether alcohol polymer, 50 mg glycerol, and 20 mg sodium bicarbonate in aqueous solution or normal or diluted saline.

25. A device for administration of a nasal or pharyngeal composition comprising from about 0.01 to 20% of alkylaryl polyether alcohol polymer suitable for treatment and prevention of snoring, sleep apnea, sudden infant death syndrome or for improvement of nasal breathing.

26. The device of claim 25 wherein the device is a spray container, spray vial, spray pump, atomizer, nebulizer, aerosolizer, dry powder inhaler, humidifier or a mask.

27. The device of claim 26 wherein the mask is a nasal mask suitable for application of continuous positive airway pressure.

28. The device of claim 26, wherein the is a spray container suitable for administration of the composition to the nasal or upper pharyngeal mucosa using an extension nozzle.

Sub
A3

10056524.012302

Sub
C1Sub
A4
30

29. The method of claim 4 wherein the composition is a dry powder and the device is the dry powder inhaler.

30. A nasal or pharyngeal composition for treatment or prevention of snoring, sleep apnea, sudden infant death syndrome and improvement of nasal breathing in mammals, comprising from about 0.1 mg to about 200 mg of an alkylaryl polyether alcohol polymer alone, in combination with another alkylaryl polyether alcohol polymer, or in admixture with a pharmaceutically acceptable excipient or additives.

31. The composition of claim 30, wherein the alkylaryl polyether alcohol polymer is tyloxapol and the composition is formulated as a nasal spray, nasal solution, nasal drops, lozenge or dry powder.

32. The composition of claim 31 wherein tyloxapol is in concentration from about 1 mg to about 100 dissolved in normal or diluted saline.

33. The composition of claim 32 wherein diluted saline is quarter normal or half normal saline.

34. The composition of claim 31, formulated as a dry powder or lozenge.

35. The composition of claim 34 formulated as the dry powder having a particle size between 5 and 100 microns.

36. The composition of claim 34 formulated as the lozenge.

add
C2